

Point-Of-Sale Business Application

System Build Procedure

Project: Point-Of-Sale
Business Application

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1 Scope

This document is the System Build Manual for the Point-Of-Sale Business Application and describes the manner in which the Application is built and placed on the Web Site.

1.1 General

The Point-Of-Sale (POS) Business Application is designed for the small business and provides networking capabilities not normally available to general Point-Of-Sale systems.

The principal features which set this POS Business Application Software apart from other POS accounting software systems are the following:

- Ease of Use
- Distributed Encrypted Databases
- Quicker Data Access via Calendar Indexed Databases
- Re-Posting of POS Sales transactions if database recovery is required
- Safe Non-Destructive Database Backup and Restore Operations

Please refer to the Overview document for a more detailed description of these features.

1.2 Abbreviations

IDE	Integrated Development Environment
PC	Personal Computer
POS	Point-Of-Sale
POSBA	Point-Of-Sale Business Application

2 System Build Process

2.1 Build Environment

2.1.1 Work Station

The POS Business Application software was developed on an IBM PC compatible computer system utilizing the configuration identified below.

- Intel Motherboard (or compatible)
- Pentium 4 CPU 2.0 GHz (or compatible)
- 1 GByte RAM Memory (RIMM)
- 160 GByte Hard Drive
- Graphics Adapter card
- LAN Interface
- Keyboard and mouse
- LCD Monitor Screen

2.1.2 Operating Systems

The POS Business Application software was developed on an IBM compatible computer system using the Windows XP Professional operating system.

Please Note: Service Pack 2 and all other operating system updates were also installed.

It should also be possible to build this product on other Windows Operating Systems.

2.1.3 Compiler

The POS Business Application was developed using the Borland C++ Builder IDE development package. This package provided an Integrated Development Environment (IDE) which included a source code editor, a C++ compiler/linker as well as a source code debugger for testing.

The IDE details are as follows:

Borland C++ Builder Ver 6.0 Professional Package

Available from: www.codegear.com/products/cppbuilder

2.1.4 Qsetup Composer

The Qsetup Composer package was used to build a single executable file which could be located on a web page (or a CD-ROM). When accessed on the web page, the executable file would be automatically downloaded and installed on the customer's computer system.

The Qsetup details are as follows:

Qsetup Installation Suite Ver: 7.5.0.8
Pantaray Research LTD.
www.pantaray.com

2.2 Build Operation

The POS Business Application is built as follows:

1. First open the POS Business Application project in Borland's C++ Builder.

- a) Start Borland C++ Builder.
- b) Select the "File / Open Project" menu option.
- c) The "Open Project" dialog box will be displayed.
- d) Select the POS Business Application source code directory .
- e) Select and open the "POS_Business_Application.bpr" project file.

2. Build the POS Business Application Project.

- a) Select the "Project / Build POS_Business_Application" menu option.

The project build process will be started.

Each program module will be compiled and then linked.

After a few minutes the process should complete (\pm 3.5 million lines of code).

There should be 0 Hints, 0 Warnings and 0 Errors.

Press [OK] to complete the process.

- b) The Borland C++ Builder program may now be closed.
- c) The POS Business Application executable program "POS_Business_Application.exe" will reside in the same directory as the source code files.

Copy the "POS_Business_Application.exe" file to the Qsetup "Installation Files" directory.

3. The Qsetup Composer should contain the following sub-directories:
- a) The “Installation Files” Directory.

This directory should contain the following files:

File	Description
Cash_Register.wav	Sound wave file
POS_Business_Application.exe	Application
POS_Configuration.ini	Application configuration
POS_License.lic	Application license
POS_Upgrade_Utility.exe	Application upgrade utility
The Computer Says No.wav	Sound wave file

- b) The “PDFs” Directory.

This directory should contain the following files:

File	Description
Accounts_Receivable.pdf	PDF File
Brochure_Full_Overview.pdf	PDF File
Import_Database.pdf	PDF File
Installation.pdf	PDF File
Inventory.pdf	PDF File
Overview.pdf	PDF File
Point_Of_Sale.pdf	PDF File
System.pdf	PDF File

Note: Any updates to the above documents should be converted into PDF format and placed in the “PDFs” directory. These files are incorporated into the POS Business Application Web installation file. The PDF files will be installed on the users computer when the POS Business Application is downloaded and installed via the web.

4. Use the Qsetup Composer utility to build the Web installation file
 - a) Start the Qsetup Composer utility.
 - b) Select [Open Project} and select “POS Business Application Installation.qsp”.
 - c) Adjust any of the Qsetup features (not normally required).
 - d) Select [Compile] to build the Web installation file.

Note: The POS Business Application Web Installation file will be created and placed in the Qsetup “Project” directory.

Note: The file is called “POSBAInstall_New.exe”.

- e) Close the Qsetup Composer utility.
5. The Web Installation file may now be copied to the Web server directory.

3 Appendix – A**3.1 CD-ROM Project Files**

The following CD-ROM Project Directories are used:

File	Description
Data Exchange with CFG Definitions	Import configuration files
Eula	End Users License Agreement
QBT Web Pages	Quantum Blue Technology FrontPage Web
Qsetup	Qsetup project files
Upgrade Utility	Source code for building the POS upgrade utility used when installing POS Business Application software upgrades.
Version Stamp	Source code for building the Version Stamp utility used to attach a version stamp containing version and checksum information to the POS Business Application executable program.
Work	This directory contains all the POS Business Application source code files and document files.

3.2 Source Code Modules

3.2.1 Header Files

The POS Business Application CD-ROM “Work \ Code” sub-directory contains the following header files:

3.2.1.1 Definition Files

Header File	Description
Definitions.h	Literal definitions
Externals.h	External variable definitions
Macros.h	Macro definitions
Publics.h	Public variable definitions
Typedefs.h	Typedef definitions

3.2.1.2 Module Header Files

Header File	Description
POS_Accounts_Payable.h	Class and/or Prototype definitions
POS_Accounts_Payable_Report_Parameters.h	Class and/or Prototype definitions
POS_Accounts_Receivable.h	Class and/or Prototype definitions
POS_Accounts_Receivable_Report_Parameters.h	Class and/or Prototype definitions
POS_AR_Refresh_Statistics.h	Class and/or Prototype definitions
POS_Backup_Databases.h	Class and/or Prototype definitions
POS_Bank_Reconciliation.h	Class and/or Prototype definitions
POS_Bar_Codes.h	Class and/or Prototype definitions
POS_Build_Client_Accounts_Payable_Lists.h	Class and/or Prototype definitions
POS_Build_Client_Accounts_Receivable_Lists.h	Class and/or Prototype definitions
POS_Build_Client_Inventory_Lists.h	Class and/or Prototype definitions
POS_Build_Server_Accounts_Payable_Lists.h	Class and/or Prototype definitions
POS_Build_Server_Accounts_Receivable_Lists.h	Class and/or Prototype definitions
POS_Build_Server_Inventory_Lists.h	Class and/or Prototype definitions
POS_Calendar.h	Class and/or Prototype definitions
POS_Cash_Register_Drawer_Interface.h	Class and/or Prototype definitions
POS_Client_Installation.h	Class and/or Prototype definitions
POS_Communications.h	Class and/or Prototype definitions
POS_Conversion.h	Class and/or Prototype definitions
POS_Credit_Card_Codes.h	Class and/or Prototype definitions
POS_CSV_Functions.h	Class and/or Prototype definitions

Module Header Files (Cont'd)

Header File	Description
POS_Database_Edit.h	Class and/or Prototype definitions
POS_Database_Initial_Download_Message.h	Class and/or Prototype definitions
POS_Database_Parms.h	Class and/or Prototype definitions
POS_DB_Functions.h	Class and/or Prototype definitions
POS_Demo_Trial_Reminder.h	Class and/or Prototype definitions
POS_Display_License_Registrations.h	Class and/or Prototype definitions
POS_Eula.h	Class and/or Prototype definitions
POS_Export.h	Class and/or Prototype definitions
POS_Files.h	Class and/or Prototype definitions
POS_Find.h	Class and/or Prototype definitions
POS_General_Ledger.h	Class and/or Prototype definitions
POS_Help.h	Class and/or Prototype definitions
POS_Identify_Users.h	Class and/or Prototype definitions
POS_Import.h	Class and/or Prototype definitions
POS_Import_Correction.h	Class and/or Prototype definitions
POS_Import_Log.h	Class and/or Prototype definitions
POS_Import_Parameters.h	Class and/or Prototype definitions
POS_Information>Loading_Database.h	Class and/or Prototype definitions
POS_Installation_Welcome.h	Class and/or Prototype definitions
POS_Inventory.h	Class and/or Prototype definitions
POS_Inventory_File_Maintenance.h	Class and/or Prototype definitions
POS_Inventory_Report_Parameters.h	Class and/or Prototype definitions
POS_Invoice_Number.h	Class and/or Prototype definitions
POS_Invoice_Options.h	Class and/or Prototype definitions
POS_License_Configuration_Create.h	Class and/or Prototype definitions
POS_License_Configuration_View.h	Class and/or Prototype definitions
POS_License_Key_Create.h	Class and/or Prototype definitions
POS_License_Key_Enter.h	Class and/or Prototype definitions
POS_License_Registration.h	Class and/or Prototype definitions
POS_Log.h	Class and/or Prototype definitions
POS_Login.h	Class and/or Prototype definitions
POS_main.h	Class and/or Prototype definitions
POS_Multiple_Computer_Installation.h	Class and/or Prototype definitions
POS_Network.h	Class and/or Prototype definitions
POS_Network_Monitor_Client.h	Class and/or Prototype definitions
POS_Network_Monitor_Server.h	Class and/or Prototype definitions
POS_Network_Registration_Error.h	Class and/or Prototype definitions
POS_Options.h	Class and/or Prototype definitions
POS_Password.h	Class and/or Prototype definitions
POS_Payroll.h	Class and/or Prototype definitions
POS_Printer.h	Class and/or Prototype definitions

Module Header Files (Cont'd)

Header File	Description
POS_Printer_Index.h	Class and/or Prototype definitions
POS_Printer_Selection.h	Class and/or Prototype definitions
POS_Project_Selection.h	Class and/or Prototype definitions
POS_Purchase_Order.h	Class and/or Prototype definitions
POS_Quote_Number.h	Class and/or Prototype definitions
POS_Quote_Options.h	Class and/or Prototype definitions
POS_Receipt_Number.h	Class and/or Prototype definitions
POS_Receipt_Options.h	Class and/or Prototype definitions
POS_Reentrancy_Test.h	Class and/or Prototype definitions
POS_Register.h	Class and/or Prototype definitions
POS_Register_Account_Payment_Receipt.h	Class and/or Prototype definitions
POS_Register_Balance.h	Class and/or Prototype definitions
POS_Register_Change.h	Class and/or Prototype definitions
POS_Register_Check_Info.h	Class and/or Prototype definitions
POS_Register_Credit_Exceeded.h	Class and/or Prototype definitions
POS_Register_Credit_Info.h	Class and/or Prototype definitions
POS_Register_Currency.h	Class and/or Prototype definitions
POS_Register_Customer_Info.h	Class and/or Prototype definitions
POS_Register_Files.h	Class and/or Prototype definitions
POS_Register_Item.h	Class and/or Prototype definitions
POS_Register_Item_Discount.h	Class and/or Prototype definitions
POS_Register_No_Account_Customers.h	Class and/or Prototype definitions
POS_Register_No_Inventory_Items.h	Class and/or Prototype definitions
POS_Register_Notes.h	Class and/or Prototype definitions
POS_Register_Number.h	Class and/or Prototype definitions
POS_Register_Paid_In.h	Class and/or Prototype definitions
POS_Register_Paid_Out.h	Class and/or Prototype definitions
POS_Register_Posting_Progress.h	Class and/or Prototype definitions
POS_Register_Quote_EndDate.h	Class and/or Prototype definitions
POS_Register_Recall_Quote.h	Class and/or Prototype definitions
POS_Register_Recall_Sale.h	Class and/or Prototype definitions
POS_Register_Recall_Sale_History.h	Class and/or Prototype definitions
POS_Register_Report_Parameters.h	Class and/or Prototype definitions
POS_Register_Reports.h	Class and/or Prototype definitions
POS_Register_Sale_Date.h	Class and/or Prototype definitions
POS_Register_Selection.h	Class and/or Prototype definitions
POS_Register_Start.h	Class and/or Prototype definitions
POS_Register_Total_Discount.h	Class and/or Prototype definitions
POS_Registry.h	Class and/or Prototype definitions
POS_Repost_Register_Transactions.h	Class and/or Prototype definitions
POS_Reset_Current_POS_Sale_Files.h	Class and/or Prototype definitions

Module Header Files (Cont'd)

Header File	Description
POS_Restore_Database_From_Directory.h	Class and/or Prototype definitions
POS_Restore_Database_From_File.h	Class and/or Prototype definitions
POS_Sale_Types.h	Class and/or Prototype definitions
POS_Search_For_PDF_Reader.h	Class and/or Prototype definitions
POS_Server_Installation_Multiple.h	Class and/or Prototype definitions
POS_Server_Installation_Single.h	Class and/or Prototype definitions
POS_Single_Computer_Installation.h	Class and/or Prototype definitions
POS_Source_Document_Number.h	Class and/or Prototype definitions
POS_Source_Document_Options.h	Class and/or Prototype definitions
POS_System.h	Class and/or Prototype definitions
POS_System_Configuration_Editor.h	Class and/or Prototype definitions
POS_System_INI_Settings.h	Class and/or Prototype definitions
POS_System_Login.h	Class and/or Prototype definitions
POS_System_Override.h	Class and/or Prototype definitions
POS_System_Registry.h	Class and/or Prototype definitions
POS_System_Wide_Options.h	Class and/or Prototype definitions
POS_Tax_Codes.h	Class and/or Prototype definitions
POS_Term_Codes.h	Class and/or Prototype definitions
POS_Timers.h	Class and/or Prototype definitions
POS_Transaction_Codes.h	Class and/or Prototype definitions
POS_Transaction_Sources.h	Class and/or Prototype definitions
POS_Version_Stamp.h	Class and/or Prototype definitions
POS_Welcome_Demo.h	Class and/or Prototype definitions
POS_Welcome_Limited.h	Class and/or Prototype definitions
POS_Welcome_Server_Client_Overview.h	Class and/or Prototype definitions
POS_Welcome_Single_Multiple_Installation.h	Class and/or Prototype definitions
POS_Welcome_Unlimited.h	Class and/or Prototype definitions

3.2.2 Module Files

Module File	Description
POS_Accounts_Payable.cpp	Form Class Functions
POS_Accounts_Payable_Report_Parameters.cpp	Form Class Functions
POS_Accounts_Receivable.cpp	Form Class Functions
POS_Accounts_Receivable_Report_Parameters.cpp	Form Class Functions
POS_AR_Refresh_Statistics.cpp	Form Class Functions
POS_Backup_Databases.cpp	Form Class Functions
POS_Bank_Reconciliation.cpp	Form Class Functions
POS_Bar_Codes.cpp	Barcode Generation Functions
POS_Build_Client_Accounts_Payable_Lists.cpp	Form Class Functions
POS_Build_Client_Accounts_Receivable_Lists.cpp	Form Class Functions
POS_Build_Client_Inventory_Lists.cpp	Form Class Functions
POS_Build_Server_Accounts_Payable_Lists.cpp	Form Class Functions
POS_Build_Server_Accounts_Receivable_Lists.cpp	Form Class Functions
POS_Build_Server_Inventory_Lists.cpp	Form Class Functions
POS_Calendar.cpp	Form Class Functions
POS_Cash_Register_Drawer_Interface.cpp	Form Class Functions
POS_Client_Installation.cpp	Form Class Functions
POS_Communications.cpp	RS232 Communications Functions
POS_Conversion.cpp	Form Class Functions
POS_Credit_Card_Codes.cpp	Form Class Functions
POS_CSV_Functions.cpp	General CSV Functions
POS_Database_Edit.cpp	Form Class Functions
POS_Database_Initial_Download_Message.cpp	Form Class Functions
POS_Database_Parms.cpp	Form Class Functions
POS_DB_Functions.cpp	General Database Functions
POS_Demo_Trial_Reminder.cpp	Form Class Functions
POS_Display_License_Registrations.cpp	Form Class Functions
POS_Eula.cpp	Form Class Functions
POS_Export.cpp	Form Class Functions
POS_Files.cpp	Form Class Functions
POS_Find.cpp	Form Class Functions
POS_General_Ledger.cpp	Form Class Functions
POS_Help.cpp	Form Class Functions
POS_Identify_Users.cpp	Form Class Functions
POS_Import.cpp	Form Class Functions
POS_Import_Correction.cpp	Form Class Functions
POS_Import_Log.cpp	Form Class Functions
POS_Import_Parameters.cpp	Form Class Functions
POS_Information>Loading_Database.cpp	Form Class Functions

Module Files (Cont'd)

Module File	Description
POS_Installation_Welcome.cpp	Form Class Functions
POS_Inventory.cpp	Form Class Functions
POS_Inventory_File_Maintenance.cpp	Form Class Functions
POS_Inventory_Report_Parameters.cpp	Form Class Functions
POS_Invoice_Number.cpp	Form Class Functions
POS_Invoice_Options.cpp	Invoice Options Functions
POS_License_Configuration_Create.cpp	Form Class Functions
POS_License_Configuration_View.cpp	Form Class Functions
POS_License_Key_Create.cpp	Form Class Functions
POS_License_Key_Enter.cpp	Form Class Functions
POS_License_Registration.cpp	License Registration Functions
POS_Log.cpp	Form Class Functions
POS_Login.cpp	Form Class Functions
POS_main.cpp	Form Class Functions
POS_Multiple_Computer_Installation.cpp	Form Class Functions
POS_Network.cpp	Network Process Functions
POS_Network_Monitor_Client.cpp	Form Class Functions
POS_Network_Monitor_Server.cpp	Form Class Functions
POS_Network_Registration_Error.cpp	Form Class Functions
POS_Options.cpp	General Options Functions
POS_Password.cpp	Form Class Functions
POS_Payroll.cpp	Form Class Functions
POS_Printer.cpp	General Print Functions
POS_Printer_Index.cpp	Printer Index Functions
POS_Printer_Selection.cpp	Form Class Functions
POS_Project_Selection.cpp	Form Class Functions
POS_Purchase_Order.cpp	Form Class Functions
POS_Quote_Number.cpp	Form Class Functions
POS_Quote_Options.cpp	Quote Options Functions
POS_Receipt_Number.cpp	Form Class Functions
POS_Receipt_Options.cpp	Receipt Options Functions
POS_Reentrancy_Test.cpp	Form Class Functions
POS_Register.cpp	Form Class Functions
POS_Register_Account_Payment_Receipt.cpp	Form Class Functions
POS_Register_Balance.cpp	Form Class Functions
POS_Register_Change.cpp	Form Class Functions
POS_Register_Check_Info.cpp	Form Class Functions
POS_Register_Credit_Exceeded.cpp	Form Class Functions
POS_Register_Credit_Info.cpp	Form Class Functions
POS_Register_Currency.cpp	Form Class Functions
POS_Register_Customer_Info.cpp	Form Class Functions

Module Files (Cont'd)

Header File	Description
POS_Register_Files.cpp	Register File Functions
POS_Register_Item.cpp	Form Class Functions
POS_Register_Item_Discount.cpp	Form Class Functions
POS_Register_No_Account_Customers.cpp	Form Class Functions
POS_Register_No_Inventory_Items.cpp	Form Class Functions
POS_Register_Notes.cpp	Form Class Functions
POS_Register_Number.cpp	Form Class Functions
POS_Register_Paid_In.cpp	Form Class Functions
POS_Register_Paid_Out.cpp	Form Class Functions
POS_Register_Posting_Progress.cpp	Form Class Functions
POS_Register_Quote_EndDate.cpp	Form Class Functions
POS_Register_Recall_Quote.cpp	Form Class Functions
POS_Register_Recall_Sale.cpp	Form Class Functions
POS_Register_Recall_Sale_History.cpp	Form Class Functions
POS_Register_Report_Parameters.cpp	Form Class Functions
POS_Register_Reports.cpp	Form Class Functions
POS_Register_Sale_Date.cpp	Form Class Functions
POS_Register_Selection.cpp	Form Class Functions
POS_Register_Start.cpp	Form Class Functions
POS_Register_Total_Discount.cpp	Form Class Functions
POS_Registry.cpp	Registry Access Functions
POS_Repost_Register_Transactions.cpp	Form Class Functions
POS_Reset_Current_POS_Sale_Files.cpp	Form Class Functions
POS_Restore_Database_From_Directory.cpp	Form Class Functions
POS_Restore_Database_From_File.cpp	Form Class Functions
POS_Sale_Types.cpp	Form Class Functions
POS_Search_For_PDF_Reader.cpp	Form Class Functions
POS_Server_Installation_Multiple.cpp	Form Class Functions
POS_Server_Installation_Single.cpp	Form Class Functions
POS_Single_Computer_Installation.cpp	Form Class Functions
POS_Source_Document_Number.cpp	Form Class Functions
POS_Source_Document_Options.cpp	Source Document Functions
POS_System.cpp	General System Functions
POS_System_Configuration_Editor.cpp	Form Class Functions
POS_System_INI_Settings.cpp	Form Class Functions
POS_System_Login.cpp	Form Class Functions
POS_System_Override.cpp	Form Class Functions
POS_System_Registry.cpp	Form Class Functions
POS_System_Wide_Options.cpp	Form Class Functions
POS_Tax_Codes.cpp	Form Class Functions

Module Files (Cont'd)

Header File	Description
POS_Term_Codes.cpp	Form Class Functions
POS_Timers.cpp	Timer Process Functions
POS_Transaction_Codes.cpp	Form Class Functions
POS_Transaction_Sources.cpp	Form Class Functions
POS_Version_Stamp.cpp	Form Class Functions
POS_Welcome_Demo.cpp	Form Class Functions
POS_Welcome_Limited.cpp	Form Class Functions
POS_Welcome_Server_Client_Overview.cpp	Form Class Functions
POS_Welcome_Single_Multiple_Installation.cpp	Form Class Functions
POS_Welcome_Unlimited.cpp	Form Class Functions

3.2.3 Configuration File

Header File	Description
POS_Configuration.ini	Configuration Settings